**Negative Exponents**

We can’t raise a number to a negative power because we can’t multiply a number by itself a negative number of times. Therefore, we have to change the negative exponents to positive exponents. However, we cannot simply change the sign of the power. Here’s what we do:

- If the negative exponent is in the numerator of a fraction, we move the exponent and its base to the denominator and the exponent becomes positive. Everything else about the expression stays the same.

**Examples:**





- If the negative exponent is in the denominator of a fraction, we move the exponent and its base to the numerator and the exponent becomes positive. Everything else about the expression remains the same.

**Examples:**





- What if there are negative exponents in the numerator and the denominator? Then we move the negative exponents in the denominator to the numerator and move the negative exponents in the numerator to the denominator.

**Example:**



- What if a fraction is raised to a negative power? You flip the fraction (the reciprocal) and the exponent becomes positive. Then, you simplify it like we did in the fraction to a power lesson.

**Example:**

